



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/530,459

11/15/2005

Ehud Gal

U 015711-6

3025

140

7590

10/06/2008

LADAS & PARRY LLP  
26 WEST 61ST STREET  
NEW YORK, NY 10023

EXAMINER

LESTER, EVELYN A

ART UNIT

PAPER NUMBER

2873

MAIL DATE

DELIVERY MODE

10/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,459	<b>Applicant(s)</b> GAL ET AL.	
	<b>Examiner</b> Evelyn A. Lester	<b>Art Unit</b> 2873	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 13-15, 20, 24-34, 36 and 37 is/are rejected.
- 7) ☒ Claim(s) 5, 11, 12, 16-19, 21-23 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/05; 5/06</u> .                                              | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “connector” (recited in claims 11-19 and 21-23 and provided in Specification on page 20, line 11) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New

Art Unit: 2873

Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

4. Claims 4, 6-8, 13-15, 20, 23-34 and 36-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 4, 6-8, 13-15, 20, 26-31, 33 and 34, the phrase "designed to" renders the claims indefinite, because it is unclear what the scope of this limitation should be. Being designed to perform a function is not a positive structural limitation, and therefore considered to be indefinite.

Regarding claim 23, the term “suitable” is considered to be indefinite because it is unclear whether this is a structural limitation, or what the scope of this term should be.

Regarding claims 24 and 25, the phrase "can be described" is not a positive structural limitation. It is unclear whether the limitations are required to meet the claimed invention or not, and therefore considered indefinite.

Regarding claims 32 and 33, the phrase "such as" render the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 36 and 37, the indication of "use" for the mechanical connector is not definite because the "use" of a structural element is a method and requires positive method steps. Also, the claims are apparatus claims, not method claims.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 9-10 and 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Wallerstein et al (U.S. Patent 2002/0154417 A1).

Wallerstein et al disclose the claimed invention, as noted for example in Figure 2, of an omni-directional imaging assembly comprising a solid omni-directional lens said omni-directional lens comprising: (a) a vertical axis of symmetry (201); (b) an upper surface (221), at least part of which is capable of reflecting rays that arrive from the inner side of the omni-directional lens; (c) a transparent perimeter surface (213); (d) a

Art Unit: 2873

lower convex surface (215), at least part of which is capable of reflecting rays that arrive from the direction of said perimeter surface; (e) a transparent circular surface (219) maintained in said lower convex surface around said vertical axis of symmetry; wherein light rays from a first 360 degrees, panoramic, scene are refracted by said transparent perimeter surface, are then reflected by said lower convex surface towards said upper surface, and then reflected by said upper surface towards said transparent circular surface, then refracted and exit said omni-directional lens.

With respect to claim 2, note paragraph [0035] and element (221).

With respect to claim 3, note paragraph [0032].

With respect to claim 4, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. The phrase "designed to enable" is interpreted as "adapted to," therefore the prior art only need read on the structural limitations.

With respect to claim 9, not element (78).

With respect to claim 10, note Figure 2, element 209.

With respect to claims 24 and 25, no positive structural limitation is provided.

Wallerstein et al reads on the claimed invention as described above.

***Allowable Subject Matter***

7. Claims 6-8, 13-15, 20, 26-31, 33, 34, 36 and 37 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 5, 11, 12, 16-19, 21-23, 32 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not show or fairly suggest the claimed subject matter of an omni-directional imaging assembly having the claimed structure and claimed limitations, wherein a rejection under 35 USC 102 or 103 would be improper. Please particularly note the combination of claimed elements and claimed limitations, including as recited in claim 5, a second transparent circular area maintained in the upper surface of the omni-directional lens around the vertical axis of symmetry; said second transparent circular area enabling penetration of rays from a second scene, at least partially different than the first scene, into said omni-directional lens, wherein rays from said second scene travel through said omni-directional lens, are refracted by the transparent circular surface in the lower surface, and exit said omni-directional lens (claims 6-8 and 26-31 depend from claim 5); as recited in claim 11, a connector located between the

Art Unit: 2873

omni-directional lens and the image capture device, said connector having a first edge and a second edge, wherein optical transparency exists between said first edge and said second edge, allowing light penetrating said first edge to reach and exit through said second edge essentially without distortion (claims 12-19, 21-23 depend from claim 11); as recited in claim 32, cylindrical slots in the body of the omni-directional lens around the axis of symmetry, said slots formed in size and angle such as to not interfere with the optical path of rays originating in scenes that should be covered by said omni-directional lens; wherein said slots absorb light and prevent glare; as recited in claim 33, a prism and an illumination source; wherein said prism is located coaxially with the omni-directional lens and said illumination source is located to the side of said prism and directed towards said prism; wherein said prism is designed and positioned such as to transmit rays that arrive from the direction of said omni-directional lens to the desired location and to refract illumination rays originating at said illumination source towards said omni-directional lens; as recited in claim 34, an image capture device located above and adjacent to said upper surface, directed opposite to the omni-directional lens, said image capture device being designed to cover an additional scene, at least partially different from the first scene; and as recited in claim 35, wherein the omni-directional lens further comprises a hole to the side of the vertical axis of symmetry, said hole extending from the upper surface to the lower surface of said lens; wherein said hole comprises a mechanical channel (claims 36 and 37 depend from claim 35).



Art Unit: 2873

Therefore, the claimed invention is considered to be allowable as being novel and nonobvious over the prior art.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wallerstein et al (U.S. Patent 7,019,918 B2) teaches a configuration of an omnidirectional assembly.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on M-F, subject to an increased flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2873

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Evelyn A. Lester/  
Primary Examiner, Art Unit 2873